



The Big Idea

**A new kind of innovator
can wipe out incumbents
in a flash.** *by Larry Downes
and Paul F. Nunes*

BIG- BANG DISRU

PTION

By now any well-read executive knows the basic playbook for saving a business from disruptive innovation. Nearly two decades of management research, beginning with Joseph L. Bower and Clayton M. Christensen's 1995 HBR article, "Disruptive Technologies: Catching the Wave," have taught businesses to be on the lookout for upstarts that offer cheap substitutes to their products, capture new, low-end customers, and then gradually move upmarket to pick off higher-end customers, too. When these disrupters appear, we've learned, it's time to act quickly—either acquiring them or incubating a competing business that embraces their new technology.

But the strategic model of disruptive innovation we've all become comfortable with has a blind spot. It assumes that disrupters start with a lower-priced, inferior alternative that chips away at the least profitable segments, giving an incumbent business time to start a skunkworks and develop its own next-generation products.

That advice hasn't been much help to navigation-product makers like TomTom, Garmin, and Magellan. Free navigation apps, now preloaded on every smartphone, are not only cheaper but better than the stand-alone devices those companies sell. And thanks to the robust platform provided by the iOS and Android operating systems, navigation apps are constantly improving, with new versions distributed automatically through the cloud.

The disruption here hasn't come from competitors in the same industry or even from companies with a remotely similar business model. Nor did the new technology enter at the bottom of a mature market and then follow a carefully planned march through larger customer segments. Users made the switch in a matter of weeks. And it wasn't just the least profitable or "underserved" customers who were lured away. Consumers in every segment defected simultaneously—and in droves.

That kind of innovation changes the rules. We're accustomed to seeing mature products wiped out by new technologies and to ever-shorter product life cycles. But now entire product lines—whole markets—are being created or destroyed overnight. Disrupters can come out of nowhere and instantly

be everywhere. Once launched, such disruption is hard to fight.

We call these game changers "big-bang disrupters." They don't create dilemmas for innovators; they trigger disasters.

In this new era, strategy needs a rethink. We've spent the past 15 years studying disruptive technologies and are now completing a multi-industry survey of those that defy the accepted wisdom. We've found that big-bang disruptions are unplanned and unintentional. They do not follow conventional strategic paths or normal patterns of market adoption. And while there's not a lot of evidence yet on how incumbents can survive them, we offer some strategic principles that we think can help.

A Difference in Kind

The first key to survival is understanding that big-bang disruptions differ from more-traditional innovations not just in degree but in kind. Besides being cheaper than established offerings, they're also more inventive and better integrated with other products and services. And today many of them exploit consumers' growing access to product information and ability to contribute to and share it.

In the age of Facebook, Twitter, and Tumblr, internet fads (or "memes") can infect the whole world in a matter of days. Products can, too. An ad-supported version of the game Angry Birds was downloaded over a million times in the first 24 hours it was available on Android devices. (That number might have been even higher had the enthusiastic response not crashed the developer's servers.) Seven months later the game had been downloaded more than 200 million times.

Upstart products and services in a slew of industries have likewise grown fast enough to leave incumbents gasping. Consider CampusBookRentals and Khan Academy in education, Pandora and Spotify in radio and recorded music, Skype and FaceTime in voice and video calling, and Square in mobile credit-card processing. These offerings' lightning-fast adoption is a function of near-perfect market information. Wherever customers are, mobile devices let them search a wide range of specialized data sources—including online sites like Yelp, TripAdvisor, Amazon, and other free databases of user-generated reviews—to find the best price and quality and the next new thing.

The shock waves from big-bang disruptions emanate far beyond information-based goods and

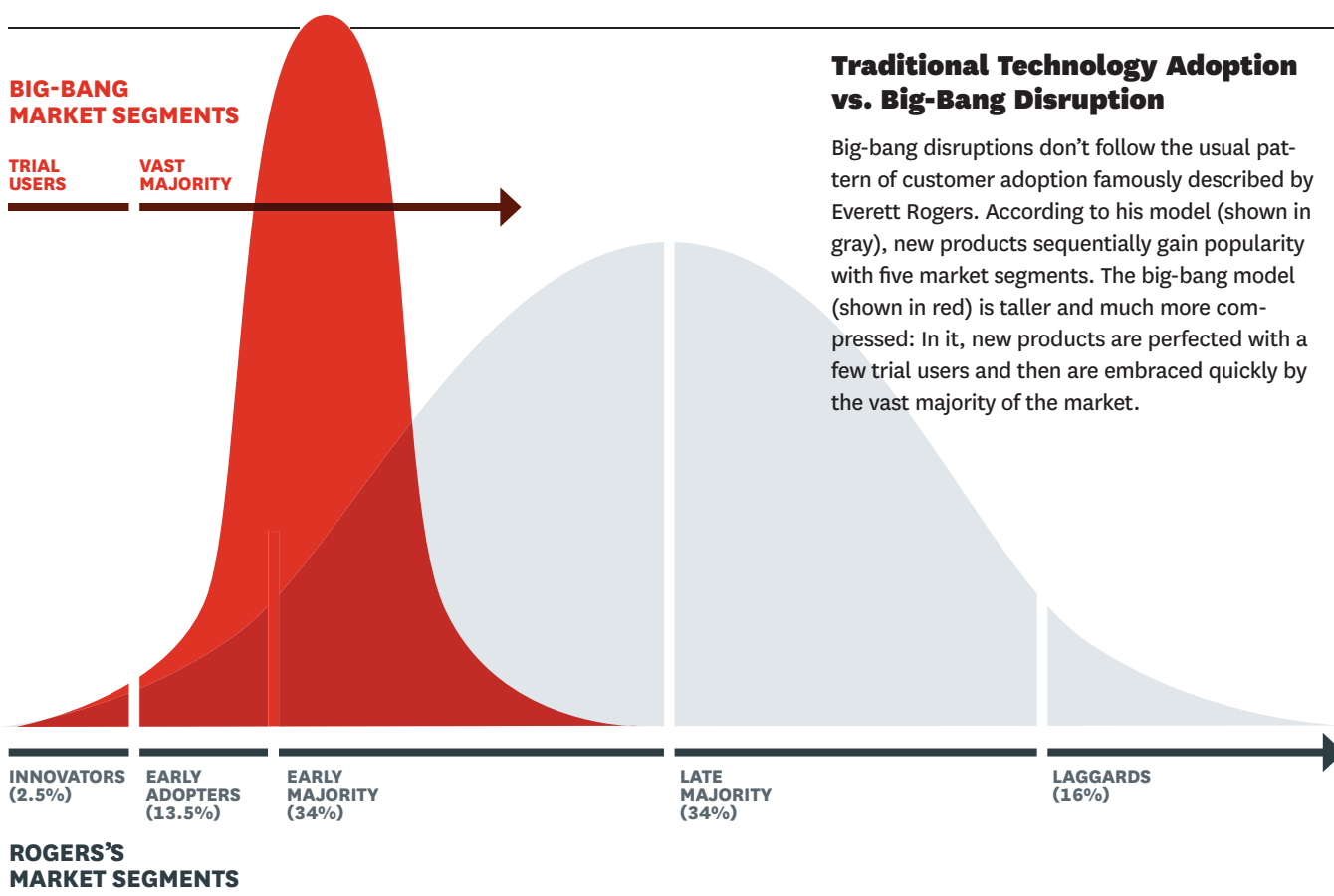
Idea in Brief

Disruptive technological innovations have traditionally started out cheap and simple, gradually improving in quality until they challenged incumbents.

New digital platforms such as the smartphone, however, are enabling innovations that offer customers both a better experience and a much lower price, right out of the gate. (Think of free mobile apps' superiority to dedicated GPS devices.)

These "big-bang" disruptions are often unplanned and unintentional. They do not follow conventional strategic paths or normal patterns of market adoption.

To survive them, incumbents need to develop new tools to detect radical change in the offing, new strategies to slow down disrupters, new ways to leverage existing assets in other markets, and a more diversified approach to investment.



services. Food and cars, for example, can't be replaced by smartphone apps. But restaurants now depend on online reservations, customer-generated reviews, coupons delivered through mobile devices, and location-based services to drive business. In automobiles, information technology powers sophisticated dashboard systems and, in the not-too-distant future, may control self-driving cars.

But perhaps the biggest challenge to incumbents is that big-bang innovations come out of left field, combining existing technologies that don't even seem related to your offerings to achieve a dramati-

cally better value proposition. Big-bang disrupters may not even see you as competition. They don't share your approach to solving customer needs. And they're not sizing up your product line and figuring out ways to offer slightly better price or performance with hopes of gaining a short-term advantage. Usually, they're just tossing something shiny in the direction of your customers, hoping to attract them to a business that's completely different from yours.

When digital image technology first infiltrated consumer photography, for example, its developers weren't aiming to destroy the film industry. But

they did. When President Clinton declassified high-quality GPS data, in 2000, it wasn't because map publishers were clamoring to create better navigation aids. Someone else—in electronics—saw that possibility.

Or recall how Jeff Bezos decided to enter the book business. E-commerce, he realized, was the natural solution for a fragmented market with an enormous number of SKUs; a small, shippable product; and a stable supply chain characterized by many sellers served by a few dominant middlemen. He settled on books not because he had any expertise in publishing but because books were a coldly rational choice. They fit the tool he wanted to apply.

Competitors like that can blindside you. They do not simply create the need for faster strategy formulation and execution, and more-effective operations. They create a need for entirely new innovation, strategy, and go-to-market approaches.

Three Devastating Features

Once big-bang disrupters enter the market, it's up, up, and away. They deliver surprise after surprise, thanks to three defining characteristics: unencumbered development, unconstrained growth, and undisciplined strategy.

Unencumbered development. Right now, at Silicon Valley companies large and small, engineers and product developers are getting together late at night in what are popularly known as "hackathons." Their goal is to see what kind of new products can be cobbled together in a few days. You know, for fun. The innovators are not even trying to disrupt your business. You're just collateral damage.

Twitter, for example, began its commercial life humbly at the 2007 South by Southwest conference, following its invention at a hackathon the year before. Its developers wanted to test sending standard text messages to multiple users simultaneously, an experiment that required almost no new technology. Today the company boasts more than 200 million active users and half a billion tweets a day. Twitter has destabilized everything from the news and information ecosystem to unpopular national governments.

Twitter's sudden success with minimal investment underscores an important dimension of big-bang innovations: They are often born of rapid-fire, low-cost experiments on fast-maturing, ubiquitous technology platforms. They don't need budget approval and aren't vetted before development begins.



When cost is low and expectations are modest, entrepreneurs can just launch their ideas and see what happens.

Like Twitter, these innovations are often built out of readily available components that cost little or are free. So-called over-the-top internet services, including Netflix, Hulu, and Skype, use existing home internet connections and nonproprietary audio and video compression protocols to challenge the bundled channel selections and voice services of cable and phone companies. These new tools allow consumers to pick and choose the content and features they want, thwarting the strategic plans of the very companies that provide the infrastructure. In the future the most successful innovators may be those who simply happen upon the right combination of other people's technologies.

As disruptive technologies become cheaper to manufacture and deploy, innovators can experiment with new applications at little risk to investors, abandoning prototypes that do not quickly prove popular. Generally these experiments take place directly in the market, using open platforms built on the internet, cloud computing, and fast-cycling mobile devices. New businesses can be launched without their own foundation. If the application catches on with users, computer processing, business software, data storage, and communications capacity can all be leased or purchased in real time. In the bizarre world of big-bang disrupters, it is perfectly rational to churn out dozens of new products and see which ones take hold. Like venture capital investments, most will fail outright. But just one success can pay off big.

Unconstrained growth. Big-bang disruptions collapse the product life cycle we know: Everett Rogers's classic bell curve of five distinct customer segments—innovators, early adopters, early majority, late majority, and laggards. Now there are only two segments: trial users, who often participate in



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product development, and everyone else. The adoption curve has become something closer to a straight line that heads up and then falls rapidly when saturation is reached or a new disruption appears. (See “Traditional Technology Adoption vs. Big-Bang Disruption.”)

This change obviates the need for the carefully timed shifts in marketing strategy that Geoffrey Moore described in *Crossing the Chasm* (1991). Moore focused on making the big leap from targeting early adopters to marketing to the early majority. (The gap between the two groups is what he dubbed the “chasm.”) But big-bang disruptions can be marketed to every segment simultaneously, right from the start. When the iPad arrived, it wasn’t just for people who couldn’t afford a laptop. Every millionaire wanted one, too.

The new product cycle can be simplified into three basic stages: development, deployment, and replacement. It is much faster, approximating the speed at which computing power doubles, which, as Intel cofounder Gordon Moore famously predicted in 1965, happens every two years. We’re now doubling an enormous amount of power, which greatly accelerates the rate of disruption, too. Gordon Moore’s law, not Geoffrey’s, now sets the pace.

The adoption of disruptive innovations is no longer defined by crossing a marketing chasm. Instead, the innovators collectively get it wrong, wrong, wrong—and then unbelievably right. That makes it even harder for businesses wed to today’s products

and services. All those failed experiments seem like evidence that the emerging technologies just aren’t ready. In reality, in today’s hyperinformed world, each epic failure feeds consumer expectations for the potential of something dramatically better.

Consider such captivating but ultimately unsuccessful launches as Magnavox Odyssey (home gaming), Apple’s Newton (tablet computing), Napster (digital music), Betamax (home video recording), and the first-generation electric cars. When declining technology costs finally make the right solution feasible, the appetite of consumers has been thoroughly whetted. It’s then too late for incumbents to jump in. Waiting for the market to take off and hoping to be a fast follower is now a recipe for irrelevance.

Seemingly random experiments and crash-and-burn flops may actually be your best warning of an urgent need for a change in strategy, or “strategic pivot.” It’s like a battlefield, where near misses signal not that your enemies are confused or incapable of hitting you but that they are zeroing in on your position—walking their fire onto the target, shell by shell—before unloading a full barrage on your exact location.

The combination of false signals and a natural resistance to change creates a lethal trap. When the wildly popular file-sharing service Napster was stopped dead in its tracks by litigation, in 2001, for example, recording industry executives breathed a deep sigh of relief, comfortable that they could now ease into digital distribution on their own

Down the Drain

The decline and fall of pinball provides an early example of big-bang disruption. In a few short years, a thriving industry was razed—in much the same way that at least 30 other industries are being wiped out today.

After decades of prohibition in many U.S. cities, pinball machines came roaring back in the 1970s. Electronic components replaced mechanical ones, expanding the opportunities for innovative design. A new distribution channel—the stand-alone arcade—emerged to satisfy a growing baby-boomer market for entertainment. The quarters were overflowing. Yet the industry was nearly dead by the mid-1990s. How did that happen?

Early arcade video games, such as the primitive Pong, contained the seeds of pinball's destruction. But because they were simple and offered no real substitute for pinball, both pinball manufacturers and pinball wizards dismissed them. With the release of Space Invaders in 1978, momentum shifted. In that game a succession of crudely animated aliens marched relentlessly down the screen to the sound of an electronic drumbeat, gaining speed as each row shifted.

The game was strangely addictive and a perfect metaphor for what was to come. The invasion was on.

At first, by drawing even more kids to arcades, Space Invaders, Pac-Man, and their ilk actually helped the pinball business. Pinball machine sales hit an all-time high in 1993. It was in the next year, though, that big-bang disruption arrived. In 1994, Sony released PlayStation, a home game console that offered superior play at an unbeatable price. Arcade pinball machines could cost up to \$7,500. The PlayStation, which supported hundreds of games, sold for \$299. Sony quickly sold millions of units. Pinball sales imploded as arcades were shuttered in rapid succession. Within a few years all but one manufacturer had shut down forever.

"The real backbreaker came when home video finally hit the marketplace," says Tom Nieman, former head of licensing for Bally's.

timetable. Yet earlier that same year, Apple had launched iTunes, eventually leveraging it to secure market dominance over music's ongoing reinvention. The legal defeat of Napster said nothing about the irresistible qualities for consumers of anywhere-anytime music.

Or consider electronic book readers. When Amazon introduced the Kindle, in 2007, the company had learned from a decade of doomed efforts by players such as Sony and SoftBook. The first-generation Kindle finally provided the storage, battery life, and display technology that consumers needed. Just as important, Amazon offered a dedicated wireless network that seamlessly checked books in and out of a virtual personal library.

Amazon's real innovation was waiting just until the right combination of technologies was ready for mainstream use and then leveraging its powerful brand and customer network to launch Kindle with easy access to a huge catalog of books on day one. Since 2007, e-books have risen from trivial sales to account for nearly 20% of all book revenue. Along the way, they have thoroughly scrambled every link in the publishing supply chain.

Undisciplined strategy. Big-bang disrupters contradict everything you know about competitive strategy. According to Michael Treacy and Fred Wiersema's classic *The Discipline of Market Leaders* (1995), businesses should align strategic goals along one—and only one—of three value disciplines: low

cost ("operational excellence"), constant innovation ("product leadership"), or customized offerings ("customer intimacy"). Failing to choose, said the authors, meant "ending up in a muddle." Michael Porter offered similar starting points in what he called his three generic strategies for achieving competitive advantage and warned against pursuing more than one.

Big-bang disrupters, however, are thoroughly undisciplined. They start life with better performance at a lower price and greater customization. They compete with mainstream products on all three value disciplines right from the start.

How can better also be less costly? The faster, cheaper, and smaller computing power predicted by Moore's law is still the key driver, but it's now deployable on a global scale and delivered through the cloud to inexpensive mobile devices. Consider the three major costs in a product or service: the parts and manufacturing, the embedded technologies and intellectual property, and a prorated share of development costs. By continually and dramatically lowering all three at once, today's technology makes it possible to sell new products and services more cheaply than the inferior alternatives they displace.

Customers are so accustomed to this effect that they are coming to expect every product or service to get cheaper and better with each passing day. Incumbents must now innovate continuously just to keep prices and revenue from dropping.

How PlayStation Killed Pinball

Pinball sales reached an all-time high in 1993 but began to fall drastically after PlayStation's release, in 1994.

"Now kids weren't collecting in one spot and having that social interaction. It really spelled the end of the pinball era."

All the elements of big-bang disruption are here in prototype. Disruption happened rapidly, with no warning signs that home consoles were even competing with arcade machines. Sony was suddenly beating pinball on every strategic dimension—price, innovation, and customer intimacy. And its impact wasn't felt just at the low end of the market but throughout the supply chain.

Of the major pinball manufacturers, only Stern is now left, producing games for a new nostalgic home market. Williams pivoted to video slot machines, while Bally's completely escaped, transforming itself and entering entirely different businesses, including casinos and fitness. For the rest, it was game over.

PINBALL UNITS SOLD
(HUNDREDS OF THOUSANDS)

1.5

1.0

.5

0

PLAYSTATION UNITS SOLD
(MILLIONS)

30

20

10

0

1989 1992 1995 1998 2001 2004

Under these conditions you can't win simply by becoming more disciplined with your current strategy. Pulling back to focus on your best customers or on delivering higher quality or a lower price will buy you only a little time, if any. More rigorous strategic focus just blinds you to the next wave of disruption coming at you from the side.

Consider again portable navigation tools. Map-making was a mature industry dominated by a few companies and the not-for-profit automobile clubs. Competition came first from free internet sites for route directions, such as MapQuest and Yahoo Maps. Then came stand-alone and in-dash devices that use GPS satellite data to generate real-time routes and turn-by-turn spoken directions. The big-bang disruption, however, turned out to be the smartphone, a device never intended to compete with traditional navigation aids. The Google Maps Navigation app, for example, offers virtually all the features of high-end GPS devices, and it costs nothing—it's just another add-on for the free Android operating system. It has been installed on millions of smartphones and remains in perpetual "beta" release.

Google Maps Navigation competes with stand-alone GPS devices on all three value disciplines: It is clearly the cost leader. It is constantly being updated and rereleased, making it the leading innovator as well. And by offering seamless integration with mobile phone contact lists, the web, e-mail, and apps such as Yelp, it likewise wins on the dimension of customer intimacy. No surprise, then, that after years of steady growth, the GPS device industry is in a tailspin. Garmin lost 70% of its market capitalization in the two years after navigation apps were introduced; TomTom nearly 85%.

Surviving Big-Bang Disruption

Big-bang disrupters are rewriting the rules of industry after industry—and the new rules hold only until the next wave of disruption comes along. There's almost no time to adapt. Bold strategies are the only way to cope.

A decade and a half ago in *The Innovator's Dilemma*, Clayton Christensen warned incumbents to recognize new entrants' picking off low-end customers as an early indicator of industry transforma-

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Upending the Conventional Wisdom

Big-bang disruptions contradict the traditional thinking on strategy, marketing, and innovation. The classic “rules” of business don’t apply to them.

tion—and as a signal to begin experimenting with emerging technologies while there was still time. Surviving disruption, his research showed, often required a separate organization to incubate a competitive response. If you did everything right and the stars aligned, you could then move the new product into the market using your company’s existing infrastructure and advantages of scale, making up quickly for lost time.

None of that was easy, but it was at least possible. Today, given the potential for “sudden death” from a big bang, you may have no time to develop an incubated alternative.

And the scale of your current business won’t help you launch a response quickly enough to compete. Big-bang disruptions usually feature not a *vertically* integrated supply chain but a *virtually* integrated one: They are manufactured and deployed via the infrastructure of the cloud. In the face of such nimble yet perversely well-resourced competition, your operational assets suddenly morph into liabilities.

So how do you stay out of the path of the incoming comet? Here are four strategies that incumbents have used to survive and even thrive in the face of big-bang disruption:

See it coming. Learning to recognize the warning signs is key to survival. But since the early market-based experiments usually fail, the familiar signals sent by low-end customers jumping ship may never arrive. You need new tools to recognize sooner than your competitors do that radical change is on the way, and that means interpreting the real meaning behind seemingly random experiments.

Filter out the noise generated by unencumbered development by finding internal or external seers who can predict the future with insight and clarity. In every industry there are a handful of these visionaries, whose talents are based on equal parts genius and complete immersion in the industry’s inner workings.

We call such seers “truth tellers,” after the characters on soap operas that advance the plot by revealing big secrets. Your truth tellers may be easy to identify, if not to accept. They may be employees far below the ranks of senior management, working on the front lines of competition and change. They may not be your employees at all. Longtime customers, venture capitalists, industry analysts, and science fiction writers may all be truth tellers.

If finding a truth teller is hard, learning when to listen is even harder. Truth tellers are often eccentric, and their lucidity can easily be mistaken for arro-

CONVENTIONAL WISDOM

Focus on only one strategic “discipline” or “generic strategy”—low cost, product innovation, or customer intimacy.

First target a small group of early adopters and later enter the mainstream market.

Seek innovation in lower-cost, feature-poor technologies that meet the needs of underserved customer segments.

Strategic Discipline

New-Product Marketing

Innovation Method

BIG-BANG WISDOM

Compete on all three disciplines at once.

Market to all segments of users immediately. Be ready to scale up—and exit—swiftly.

Seek innovation through rapid-fire, low-cost experimentation on popular platforms.

gance and stubbornness. Consider such difficult personalities as Steve Jobs and other technology luminaries like Bill Gates, Alan Kay, and Mark Zuckerberg.

A prime example is Yukiyasu Togo, who pushed Toyota to launch Lexus after recognizing fundamental shifts in income and spending patterns in the American car market. Despite his vision and his essential role in Toyota’s ongoing operations, Togo could not get the company to invest in a luxury brand without threatening to resign. The insights of a truth teller may not come in easily digested forms. You need to learn not only whom to listen to and when, but also how.

Slow the disruptive innovation long enough to better it. The best survival strategy may simply be to ensure that disrupters can’t make money from their inventions until you’re ready to acquire them or you can win with a product of your own. You can’t stop a big-bang disruption once its unconstrained growth has taken off, but you can make it harder for its developers to cash in. Many big-bang disrupters build market share and network effects by offering their early products free. You can delay their profitability by lowering prices, locking in customers with long-term contracts, or forming strategic alliances with advertisers and other companies critical to your rivals’ plans.

Meanwhile, look for opportunities to leverage your surviving assets elsewhere. When pinball

machines were disrupted by video games, the industry's biggest player, Williams Electronics (now WMS), licensed early home games and turned them into arcade machines. Then it exited the business altogether by moving sideways into high-tech slot machines, where it now thrives. The company learned what it needed to know about the new technology and then applied it to a new business where there were fewer innovators to compete with.

Get closer to the exits, and be ready for a fast escape. It's up to senior management to confront the reality that even long-successful strategies may be suddenly upended, requiring a radical recreation of the business. To compete with undisciplined competitors, you have to prepare for immediate evacuation of current markets and be ready to get rid of once-valuable assets.

Incumbents are often trapped by their balance sheets. Traditional accounting still has little to say about the value of expertise, brands, patents, and

M&A strategies. Once customers shift to the new technology, it's too late for a graceful exit—at best, it's time for a fire sale. In the end Borders Group wasn't acquired; it was liquidated, as were many other brick-and-mortar retailers that could not compete with the lower cost and better service of online alternatives. Industry leaders that fall behind may find their market worth is little more than the value of their patent portfolio and cash on hand, as bankrupt photo giant Kodak recently discovered.

Try a new kind of diversification. Diversification has always been a hedge against risk in cyclical industries. As industry change becomes less cyclical and more volatile, having a diverse set of businesses is vital. Fujifilm, a perennial also-ran in the film business, has survived the transformation to digital photography by transitioning to other products and services that draw on subsidiary technologies, ranging from nanotechnology to the manufacture of flat-panel TVs. A move into cosmetics, for example, was

In the fight against this kind of disruption, intangibles are your most valuable assets—and perhaps the only ones you'll want to take with you.

other intangibles. But in a fight against a big-bang disruption, they are the most valuable of your existing assets—perhaps the only ones you'll want to take with you. Knowing you have them, and their true worth, can make all the difference to your survival.

For all other kinds of assets, a big-bang disruption can set off a rapid decline in value, making it important not only to shed those technologies but to do so before they become worthless. Take a page from the semiconductor industry, where fabricators are now hedging investments in new capacity by contracting to sell plants at a future time and price, often before they're even built. Or consider the recently announced acquisition of the venerable New York Stock Exchange by the upstart IntercontinentalExchange. With the rapid transformation of financial trading from physical to electronic, the residual value of the NYSE would appear to be largely in its brand.

Facing the imminent arrival of a big-bang disrupter, companies must ruthlessly reassess their

made possible by repurposing chemical processes developed to keep photos from fading. TomTom has begun to ease its reliance on its automotive navigation systems business by signing a deal last June with Apple to provide mobile mapping services.

How do you launch your own innovations? Make sure future strategies are built on a platform that can easily be extended and experimented with, and quickly scaled both up and down. The profitable life of a big-bang disrupter may be short, and you'll need to be ready with the next one before someone beats you to it. Think again of Amazon, which isn't so much a set of businesses as it is a technology platform that allows the company to repurpose its intangible assets—its expertise in e-business, its remarkable efficiency in forming collaborative partnerships with thousands of other businesses, and its leadership in software virtualization—as market conditions change. Amazon now sells not just books but everything and leases its core technologies to

In many mature industries, we've seen early failed experiments that could signal big bangs in the making.

third-party resellers. It even offers its expertise in online retailing and cloud computing to unrelated businesses that outsource their hardware and software needs to Amazon.

Your Business Is Already Being Disrupted

You can't see big-bang disruption coming. You can't stop it. You can't overcome it. Old-style disruption posed the innovator's dilemma. Big-bang disruption is the innovator's disaster. And it will be keeping executives in every industry in a cold sweat for a long time to come.

The impact of big-bang disrupters is certainly amplified for technology- and information-intensive businesses, but most industries are at risk. In automobiles, for example, manufacturers are aware of the threat posed by the electric car, having seen versions of it since the late 1800s. But so far there has been no steadily growing market of early adopters, despite a wide range of offerings today from both start-ups and global incumbents. As purely electric vehicles continue to improve their core technologies,

including faster charging and more-dependable batteries, consumers seem to be waiting for the industry to get it just right. That's a big bang in the making.


Likewise, payment processing is poised to migrate from credit cards to smartphones, and it may not be today's dominant players that launch the winning app. Given the rapid success of payment innovations like Kenya's M-Pesa in the developing world, the right solution in developed markets is likely to hit big and fast when it finally coalesces.

Even in industries where regulations limit competition, there is growing pressure from big-bang disrupters homing in on large-scale inefficiencies. Education is being privatized and moving online, exposing just how little our public institutions have invested in technology that visibly advances their core teaching mission. Hospitals are reluctant to embrace telemedicine, even though it offers the potential to provide quality, affordable health care regardless of location. Highly regulated taxi and limousine markets are being invaded by new car services such as Uber, which allows customers to order and pay with a smartphone and track dispatched rides using mobile location services.

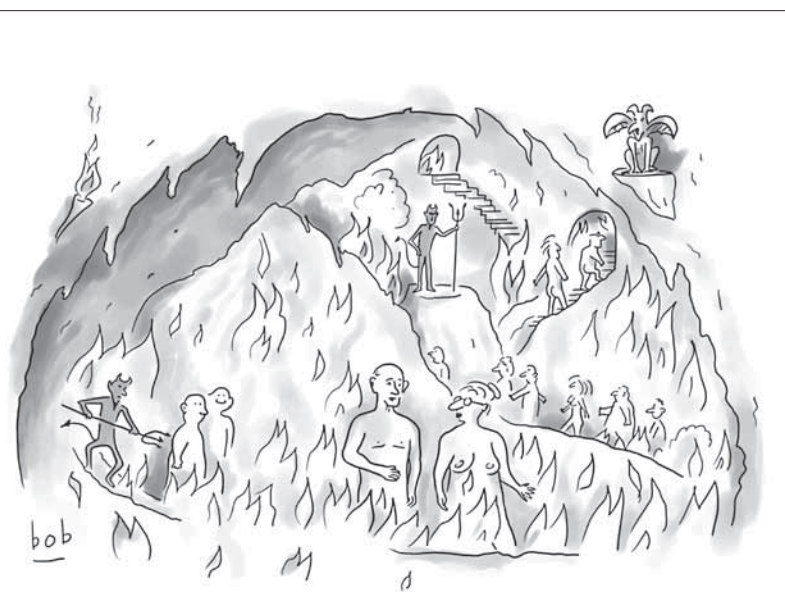
These and other mature industry segments—including many professional services, manufacturing, distribution, and retailing—are already experiencing their early failed experiments. Today's experiments may not be scalable, but an undisciplined disruption could lurk within them all. Their big bangs may not be far off.

The good news is that big-bang disruptions hold immense potential for those who can quickly learn the new rules of unencumbered development, unconstrained growth, and undisciplined strategy. Your current business may be replaced by something more dynamic and unstable but also more profitable. And the change will come not over time but suddenly. In other words, not with a whimper—but with a bang. ♥

HBR Reprint R1303B

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CARTOON: BOB ECKSTEIN



"Well, what did TripAdvisor say about this place?"